

July 2007 RCRA Consent Decree Progress Report

**CDM Status Updated on Bench-Scale
PRB Testing Work Plan - July 2007**

Asarco File

Linda
Jacobson/R8/USEPA/US
03/18/2009 09:03 AM

To Greg.Brusseau@brattle.com
cc Charles Figur/R8/USEPA/US@EPA
bcc
Subject more info on PRB

The first update includes cost of reactive media.

This document was digitally sent to you using an HP Digital Sending device.



Document.pdf

Bench-Scale Permeable Reactive Barrier (PRB) Media Testing - Status Update (July 2007)

Jar test analytical results were received the week of July 9, 2007. A meeting was held between Asarco and CDM to review the preliminary results and to discuss the next course of action.

The results indicated that the remaining candidates for PRB materials included Bayoxide E33 (a ferric hydroxide material), granular ferric hydroxide, and zero valent iron. The Bauxsol material with an oxidant added was screened out even though performance was good because the material was only available as a powder and because of uncertainty about the lifespan of the oxidant. Because the Bauxsol material without an oxidant did not perform well, it was apparent that the performance was dependent on oxidation of the arsenic.

Action items from the meeting included calculation of adsorption capacities and obtaining costs for the media to compare treatment costs.

The jar test data were analyzed using the Freundlich isotherm relationship. From the isotherm relationships for Bayoxide, ZVI, and GFH, the mass of material needed to reduce the groundwater concentration from 40 mg/L down to the MCL of 0.01 mg/L was calculated. The results, along with unit treatment costs, are compared in the table below.

Media	Freundlich Isotherm Calculation Required Dose* (g media/L water)	Media Required (lb/kgal)	Bulk Density (lb/cf)	Media Cost (\$/cf)	Cost (\$/kgal)
Bayoxide	56	467	29	\$150.00	\$2,415
GFH	114	950	72	\$205.00	\$2,706
ZVI	1,894	15,790	150	\$37.50	\$3,948

*Assumes 40mg/L concentration treated to 0.01mg/L in one stage

Based on this screening-level evaluation of cost, the more expensive media (Bayoxide and GFH) compare favorably with zero valent iron because their arsenic adsorption capacities are significantly higher. However, there are potential logistical and physical issues associated with the Bayoxide and GFH that need further consideration.

- The Bayoxide material is lightweight and may not have the physical strength to be applied in a PRB wall. This material should be examined for physical strength before a decision is made to carry it forward in any further column testing. Additionally, the material floats in water until wetted, which could make its installation below the groundwater table difficult.
- The vendor of the GFH material provided the above unit cost with the caveat that at least 18 months of lead time would be required to manufacture enough GFH for a full scale PRB wall (ballpark volume estimate was 30,000 cubic feet or about 1,200 cubic yards – a

wall 2 feet wide x 30 feet deep x 500 feet across). Thus, available quantity is the factor potentially limiting the applicability of GFH.

However, CDM believes that there are some further issues that could be resolved with a second round of jar testing and that limiting the candidates to Bayoxide E33, GFH, and ZVI alone at this time may be premature. This recommendation stems from the following findings and considerations:

1. Oxidation of arsenic was a key factor in the performance of the Bauxsol media. If arsenic could first be oxidized from arsenic (+3) to arsenic (+5), additional media may become viable candidates for use. Or, because adsorptive media typically have a higher capacity for arsenic (+5) than arsenic (+3), the capacity of a given media may increase substantially if the arsenic is oxidized, reducing the amount of media required (or increasing the lifespan of the wall). Manganese dioxide has been shown to facilitate oxidation of arsenic from +3 to +5 and, since it is a granular solid, would potentially be a material suitable for use as a component of a permeable wall. A potentially inexpensive source of manganese dioxide may be available outside of Butte, Montana (this material was formerly part of the US government's strategic manganese stockpile). CDM has a quantity of the material that could be used for testing.
2. The Taconite concentrate material was tested previously by CDM for another site in California and showed favorable results. However, for the East Helena test, the material was sieved to obtain the sand size fraction. In subsequent discussion with the vendor (U.S. Steel) it was determined that by doing this, the powdery iron-rich fraction of the sample was sieved out, leaving mostly high-silica granular material, which may have lead to the poor performance in the jar testing. U.S. Steel suggested that they have another iron-rich waste product derived from the production of their Taconite pellets that is already granular (leftover material from shaping the pellets). CDM recommends testing this material because, if it works, it would be a low-cost material.
3. Dow Chemical has a granular titanium oxide material engineered specifically for arsenic adsorption (called "Adsorpsia"). Their internal testing indicates higher capacities than ferric hydroxide-based materials. While expensive (\$400/cf, density 44 lb/cf), the high capacity of the material may balance out the high costs, and the material may have more favorable physical strength characteristics than the Bayoxide E33 material. (Note, if the same 56g/L dose as the Bayoxide is assumed for this material for comparison, the unit treatment cost of this material would come to \$4244/kgal – similar in cost to the ZVI). CDM recommends testing this material.
4. A review of EPA's pilot test results on the ZVI pilot test wall indicate that downgradient concentrations are still in excess of the MCL of 0.01 mg/L. A type of media with a higher arsenic adsorption capacity may be required to reduce the arsenic concentration to less than the MCL.

The second set of testing would have the following objectives:

1. Examine the Bayoxide E33 material to determine whether or not it is physically suitable for use in a PRB setting.
2. Perform a jar test on the additional Taconite and the Dow Adsorpsia materials.
3. Test the effectiveness of manganese dioxide material from Butte (and possibly manganese dioxide from a chemical vendor) on arsenic oxidation.
4. Test the effectiveness of a combination of manganese dioxide and a previously tested adsorption media to see if the capacity of the material is significantly increased.

CDM believes that once these additional uncertainties are examined, a better decision can be made as to which materials, if any, should undergo column testing.

The details and results of the jar testing will be provided in a technical memorandum.

Planning ahead for the column testing, Asarco indicated that EPA would allow CDM to use their field trailer to do the column testing. Preliminary discussions have been held with Hydrometrics on setting up a groundwater pump to pull water directly from Well DH-17 to run it through the columns, limiting exposure of the groundwater to atmospheric conditions. CDM has also looked into borrowing test equipment from the Denver office (pumps, columns, and a small floating head holding tank) and it is likely these can be made available to the Helena office to perform the column test.

NOTE: The second set of jar testing will add a few weeks to the original project schedule.

July 2007 RCRA Consent Decree Progress Report

INL PRB Testing Update - July 2007

July 30, 2007

Progress for July, 2007
Asarco PRB, Helena

From July 01 through July 05, data was collected autonomously at the East Helena barrier. A problem has interrupted data collection at the site; technicians from INL are scheduled to investigate the problem so that data collection can resume. INL continues their work on creating the data interface and importing all collected data.

We continue to process data using both plots and 2D images. Figure 1 compares views of borehole resistivity collected using Wenner array data along the NWN array with a .375 meter electrode separation. Figure 1a is an ERT cross-section image plotted as the change in resistivity from a 1 Hz background image taken on December 06, 2006 to June 6, 2007. Figure 1b is the corresponding 1 Hz data plotted on a monthly basis from September 22, 2006 to July 04, 2007. These data show that in the upper portion of the borehole, the resistivity values are very low, well below 1 Ohm m, and decreasing substantially over time. Between September and July the resistivity values dropped by a factor of about three.

The large area of red in Figure 1a corresponds to the increase in resistivities in the lower portion of the barrier. Plotting percent change of resistivity (as opposed to conductivity) tends to emphasize the increases in resistivity and de-emphasize the changes in areas that are becoming more conductive. The resistivity of the upper portion of the barrier has dropped to about half the value in December. This change is larger and more rapid than expected and the conductivity of the barrier is approaching that seen in working barriers at the Denver Federal Center but is still not nearly as conductive as highly aged barriers such as those at Monticello, Utah.

Although the resistivity changes in the lower portion of the barrier are significant, some changes also appear outside the barrier indicating long-term or seasonal changes in groundwater conductivity.

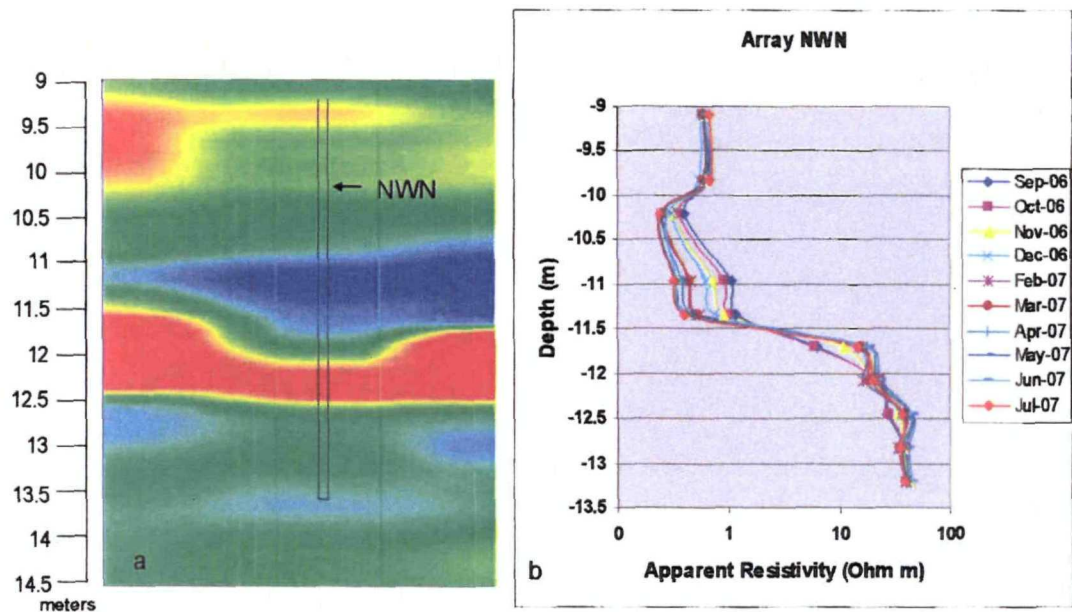


Figure 1. Change in apparent resistivity of the East Helena barrier. Figure 1a is an ERT image showing the location of array NWN and is plotted as the change in resistivity from a background image taken on December 06, 2006 to July 5, 2007. Figure 1b is the corresponding data plotted on a monthly basis from September, 2006 to July 4, 2007.

Linda
Jacobson/R8/USEPA/US
04/14/2009 04:46 PM

To Greg.Brusseau@brattle.com
cc Charles Figur/R8/USEPA/US@EPA
bcc
Subject Fw: 2009 ASARCO LLC Environmental Trust Report and
Budget Proposal

more recent cost figures for long-term monitoring

----- Forwarded by Linda Jacobson/R8/USEPA/US on 04/14/2009 04:45 PM -----



Charles
Figur/R8/USEPA/US
12/19/2008 11:46 AM

To Andrea Madigan/ENF/R8/USEPA/US@EPA
cc Linda Jacobson/R8/USEPA/US@EPA, Sharon
Kercher/ENF/R8/USEPA/US@EPA, Julie
DalSoglio/MO/R8/USEPA/US@EPA, Charles
Figur/R8/USEPA/US@EPA
Subject Fw: 2009 ASARCO LLC Environmental Trust Report and
Budget Proposal

Andrea -

The RCRA consent decree team supports ASARCO's proposal for funding from the trust, on the condition that the 3 modifications to their proposal suggested by Linda are made.

For 2.a below, if you need to forward information to HQ and DOJ prior to the week of 1/5, I suggest we require deletion of the hw cleanup/demolition line, and let them get back to us with an explanation.. Otherwise, I suggest that during the week of 1/5 Linda contact Jon to see what is included in that line.

(Reminder: I am unable to copy ASARCO's proposal in a workable format, so I am sending these suggested edits as an alternative approach to a response to their proposal.)

Thanks.

Chuck

----- Forwarded by Charles Figur/R8/USEPA/US on 12/19/2008 11:36 AM -----

Linda
Jacobson/ENF/R8/USEPA/US
11/04/2008 10:34 AM

To Charles Figur/R8/USEPA/US@EPA
cc Sharon Kercher/ENF/R8/USEPA/US@EPA
Subject Re: Fw: 2009 ASARCO LLC Environmental Trust Report and
Budget Proposal

I would suggest the following changes:

1) Page 40, Pump and Treatment of Surface Water and Water from the Dross/Speiss Acid Plant, remove the phrase "Although an active pump and treat remedy for groundwater is not proposed for the site". Pump and treat is an option which must still be retained for the CMS.

2) Estimated Cost Table

a) The figure for h.w. cleanup and demolition is questioned, since there are no other EPA-lead demolition activities planned and the state measures are not to be funded from this trust fund. I would ask for an explanation of these costs or disallow them.

b) The figure for the RFI and Risk Assessment should be increased to \$500,000 to include pilot-scale studies for remedy selection and additional characterization of soils, sediment, and biota.

Linda Jacobson

Charles Figur/R8/USEPA/US



Charles
Figur/R8/USEPA/US
11/03/2008 07:30 AM

To Linda Jacobson/ENF/R8/USEPA/US@EPA
cc Sharon Kercher/ENF/R8/USEPA/US@EPA, Julie
DalSoglio/MO/R8/USEPA/US@EPA, Randy
Breeden/R8/USEPA/US@EPA, Steven
Acree/ADA/USEPA/US@EPA, Andrea
Madigan/ENF/R8/USEPA/US@EPA
Subject Fw: 2009 ASARCO LLC Environmental Trust Report and
Budget Proposal

Linda -

I suggest opening the summary first, and then taking a look at the 2008 description and 2009 proposal.

I've noted a few things on first glance, but nothing that causes immediate problems.

ASARCO is specifically not proposing to be reimbursed for work under the State CD.

As expected, there are fewer sites competing this year, so final decisions by HQ and DOJ may be easier. On the other hand, it is likely that potential impacts to the bankruptcy process may have to be taken into account (this is a bit different from past years), so the decisions may not be so simple after all.

I believe the internal R8 process for generating a proposed response to this draft will be the same. I will make sure Andrea knows we're available to discuss our perspective with the decision-makers as necessary.

Considering Thanksgiving week, let's try to have the EH Smelter team's perspective done by November 20, so that we can be available to chat with the R8 decision-makers during the week of 12/1.

Thanks.

Chuck

----- Forwarded by Charles Figur/R8/USEPA/US on 11/03/2008 07:17 AM -----



"Dain, David (ENRD)"
<DDain@ENRD.USDOJ.GO
V>
11/03/2008 06:39 AM

To Shahid Mahmud/DC/USEPA/US@EPA, Cara
Steiner-Riley/R10/USEPA/US@EPA, Robert
Roberts/DC/USEPA/US@EPA, Melissa
Gibbons/DC/USEPA/US@EPA, Amy
Salinas/R6/USEPA/US@EPA,
<Kathleen_Moynan@fws.gov>, <amy.horner@sol.doi.gov>,



<RONALD.MCCLAIN@OGC.USDA.GOV>, Joshua
Wirtschafter/R9/USEPA/US@EPA, Larry
Johnson/R5/USEPA/US@EPA, Steven
Sanders/R7/USEPA/US@EPA, Andrea
Madigan/ENF/R8/USEPA/US@EPA, Charles
Figur/R8/USEPA/US@EPA, "Fremerman, Gary"
<GARY.FREMERMEN@OGC.USDA.GOV>
cc "Albert, Eric (ENRD)" <EAlbert@ENRD.USDOJ.GOV>,
"Gillespie, Amy (ENRD)" <AGillesp@ENRD.USDOJ.GOV>,
"Tenenbaum, Alan (ENRD)"
<ATenenba@ENRD.USDOJ.GOV>
Subject FW: 2009 ASARCO LLC Environmental Trust Report and
Budget Proposal

In the midst of all that is going on, we now have the issue of funding of the 2009 Annual Budget. Here is Asarco's submission. I have not looked at this and am not to our decisions. I think two things should guide us:

1) Regions and agencies simply need to go ahead and decide what their priorities are for 2009 funding amounts. In making these rankings you should consider point # 2 below.

2) How to best use the Budget in 2009 will likely include issues associated with the potential settlements and plans. Examples include: a) funding from budget may mean that we have to reduce a settled claim amount and it is likely we cannot increase the amount of another claim; b) we do not know if the plan will be a stand-alone stock plan or a payment plan with Sterlite purchasing the assets, or whether it will be nearly a Full Payment Plan or something significantly less; c) we do not know when a payment under the plan will happen.

We hope that by the end of the month we will have a much clearer picture of the likely plan of reorganization.

Our response to this proposal is due @ December 15, although an extension of that date may be achievable.

I suggest we maintain our normal approach and ask that Regions and Agencies submit their rankings by December 5.

From: Arthur, Ervinette [mailto:EARthur@asarco.com]
Sent: Thursday, October 30, 2008 5:17 PM
To: Dain, David (ENRD)
Subject: FW: 2009 ASARCO LLC Environmental Trust Report and Budget Proposal
Importance: High
Sensitivity: Confidential

Mr. Dain – we are resending the 2009 ASARCO LLC Environmental Trust Report and Budget Proposal to you. In error it was forwarded to the wrong email address.

Please reply that you have received the documents.

Thanks you,

Ervinette Arthur

Secretary

(303) 296-5101

-----Original Message-----

From: Arthur, Ervinette

Sent: Thursday, October 30, 2008 12:40 PM

To: 'david.dain@usdoj.epa'; 'polin.robert@epa.gov'; 'mahmud.shahid@epamail.epa.gov'

Cc: 'Tony.Davis@bakerbotts.com'; Aldrich, Tom; Litle, Bob

Subject: 2009 ASARCO LLC Environmental Trust Report and Budget Proposal

Importance: High

Sensitivity: Confidential

Mssr. Dain, Polin and Mahmud;

Attached please find three documents relating to the ASARCO LLC 2009 Environmental Trust Report.

- 1) ASARCO Cover-Letter
- 2) Proposed Environmental Trust Fund Budget Summary of Costs
- 3) 2009 ASARCO LLC Environmental Trust Report and Budget Proposal

Should you have any questions please contact Tom Aldrich at (520) 798-7749 or Bob Litle at (303) 947-9081.

Thanks you,

Ervinette Arthur

Secretary

(303) 296-5101

<<2009 DOJ Trust Cover Letter.pdf>> <<2009 Trust Fund Proposal Summary 103108.pdf>> <<2009 ASARCO LLC Environmental Trust Report and Bud.pdf>>

*

This e-mail and any files transmitted with it are the property of ASARCO LLC and/or its affiliates, are confidential, and are intended solely for the use of the individual or entity to whom this e-mail is addressed. If you are not a named recipient or otherwise have reason to believe that you have received this message in error, please notify the sender and delete this message immediately from your computer. Any other use, retention, dissemination forwarding, printing or copying of this e-mail is strictly prohibited. Although this email and any attachments are believed to be free of any virus or other defect that might affect any computer system into which it is received, and opened, it is the responsibility of the recipient to ensure that it is virus free and no responsibility is accepted by ASARCO LLC and/or its affiliates for any loss or damage arising in any way from its use
This e-mail has been scanned and cleared by MailMarshal
www.marshalssoftware.com



* 2009 DOJ Trust Cover Letter.pdf 2009 Trust Fund Proposal Summary_103108.pdf



2009 ASARCO LLC Environmental Trust Report and Bud.pdf

Linda
Jacobson/R8/USEPA/US
04/14/2009 04:46 PM

To Greg.Brusseau@brattle.com
cc Charles Figur/R8/USEPA/US@EPA
bcc
Subject Fw: 2009 ASARCO LLC Environmental Trust Report and
Budget Proposal

more recent cost figures for long-term monitoring

----- Forwarded by Linda Jacobson/R8/USEPA/US on 04/14/2009 04:45 PM -----



Charles Figur/R8/USEPA/US
12/19/2008 11:46 AM

To Andrea Madigan/ENF/R8/USEPA/US@EPA
cc Linda Jacobson/R8/USEPA/US@EPA, Sharon
Kercher/ENF/R8/USEPA/US@EPA, Julie
DalSoglio/MO/R8/USEPA/US@EPA, Charles
Figur/R8/USEPA/US@EPA
Subject Fw: 2009 ASARCO LLC Environmental Trust Report and
Budget Proposal

Andrea -

The RCRA consent decree team supports ASARCO's proposal for funding from the trust, on the condition that the 3 modifications to their proposal suggested by Linda are made.

For 2.a below, if you need to forward information to HQ and DOJ prior to the week of 1/5, I suggest we require deletion of the hw cleanup/demolition line, and let them get back to us with an explanation.. Otherwise, I suggest that during the week of 1/5 Linda contact Jon to see what is included in that line.

(Reminder: I am unable to copy ASARCO's proposal in a workable format, so I am sending these suggested edits as an alternative approach to a response to their proposal.)

Thanks.

Chuck

----- Forwarded by Charles Figur/R8/USEPA/US on 12/19/2008 11:36 AM -----

Linda
Jacobson/ENF/R8/USEPA/U
S
11/04/2008 10:34 AM

To Charles Figur/R8/USEPA/US@EPA
cc Sharon Kercher/ENF/R8/USEPA/US@EPA
Subject Re: Fw: 2009 ASARCO LLC Environmental Trust Report and
Budget Proposal

I would suggest the following changes:

1) Page 40, Pump and Treatment of Surface Water and Water from the Dross/Speiss Acid Plant, remove the phrase "Although an active pump and treat remedy for groundwater is not proposed for the site". Pump and treat is an option which must still be retained for the CMS.

2) Estimated Cost Table

a) The figure for h.w. cleanup and demolition is questioned, since there are no other EPA-lead demolition activities planned and the state measures are not to be funded from this trust fund. I would ask for an explanation of these costs or disallow them.

b) The figure for the RFI and Risk Assessment should be increased to \$500,000 to include pilot-scale studies for remedy selection and additional characterization of soils, sediment, and biota.

Linda Jacobson

Charles Figur/R8/USEPA/US



Charles Figur/R8/USEPA/US

11/03/2008 07:30 AM

To Linda Jacobson/ENF/R8/USEPA/US@EPA

cc Sharon Kercher/ENF/R8/USEPA/US@EPA, Julie DalSoglio/MO/R8/USEPA/US@EPA, Randy Breeden/R8/USEPA/US@EPA, Steven Acree/ADA/USEPA/US@EPA, Andrea Madigan/ENF/R8/USEPA/US@EPA

Subject Fw: 2009 ASARCO LLC Environmental Trust Report and Budget Proposal

Linda -

I suggest opening the summary first, and then taking a look at the 2008 description and 2009 proposal.

I've noted a few things on first glance, but nothing that causes immediate problems.

ASARCO is specifically not proposing to be reimbursed for work under the State CD.

As expected, there are fewer sites competing this year, so final decisions by HQ and DOJ may be easier. On the other hand, it is likely that potential impacts to the bankruptcy process may have to be taken into account (this is a bit different from past years), so the decisions may not be so simple after all.

I believe the internal R8 process for generating a proposed response to this draft will be the same. I will make sure Andrea knows we're available to discuss our perspective with the decision-makers as necessary.

Considering Thanksgiving week, let's try to have the EH Smelter team's perspective done by November 20, so that we can be available to chat with the R8 decision-makers during the week of 12/1.

Thanks.

Chuck

----- Forwarded by Charles Figur/R8/USEPA/US on 11/03/2008 07:17 AM -----



"Dain, David (ENRD)"
<DDain@ENRD.USDOJ.GOV>
V>

11/03/2008 06:39 AM

To Shahid Mahmud/DC/USEPA/US@EPA, Cara Steiner-Riley/R10/USEPA/US@EPA, Robert Roberts/DC/USEPA/US@EPA, Melissa Gibbons/DC/USEPA/US@EPA, Amy Salinas/R6/USEPA/US@EPA, <Kathleen_Moynan@fws.gov>, <amy.horner@sol.doi.gov>,



<RONALD.MCCLAIN@OGC.USDA.GOV>, Joshua
Wirschafter/R9/USEPA/US@EPA, Larry
Johnson/R5/USEPA/US@EPA, Steven
Sanders/R7/USEPA/US@EPA, Andrea
Madigan/ENF/R8/USEPA/US@EPA, Charles
Figur/R8/USEPA/US@EPA, "Fremmerman, Gary"
<GARY.FREMERMANN@OGC.USDA.GOV>
cc "Albert, Eric (ENRD)" <EAlbert@ENRD.USDOJ.GOV>,
"Gillespie, Amy (ENRD)" <AGillesp@ENRD.USDOJ.GOV>,
"Tenenbaum, Alan (ENRD)"
<ATenenba@ENRD.USDOJ.GOV>
Subject FW: 2009 ASARCO LLC Environmental Trust Report and
Budget Proposal

In the midst of all that is going on, we now have the issue of funding of the 2009 Annual Budget. Here is Asarco's submission. I have not looked at this and am not to our decisions. I think two things should guide us:

1) Regions and agencies simply need to go ahead and decide what their priorities are for 2009 funding amounts. In making these rankings you should consider point # 2 below.

2) How to best use the Budget in 2009 will likely include issues associated with the potential settlements and plans. Examples include: a) funding from budget may mean that we have to reduce a settled claim amount and it is likely we cannot increase the amount of another claim; b) we do not know if the plan will be a stand-alone stock plan or a payment plan with Sterlite purchasing the assets, or whether it will be nearly a Full Payment Plan or something significantly less; c) we do not know when a payment under the plan will happen.

We hope that by the end of the month we will have a much clearer picture of the likely plan of reorganization.

Our response to this proposal is due @ December 15, although an extension of that date may be achievable.

I suggest we maintain our normal approach and ask that Regions and Agencies submit their rankings by December 5.

From: Arthur, Ervinette [mailto:EArthur@asarco.com]

Sent: Thursday, October 30, 2008 5:17 PM

To: Dain, David (ENRD)

Subject: FW: 2009 ASARCO LLC Environmental Trust Report and Budget Proposal

Importance: High

Sensitivity: Confidential

Mr. Dain – we are resending the 2009 ASARCO LLC Environmental Trust Report and Budget Proposal to you. In error it was forwarded to the wrong email address.

Please reply that you have received the documents.

Thanks you,

Ervinette Arthur

Secretary

(303) 296-5101

-----Original Message-----

From: Arthur, Ervinette

Sent: Thursday, October 30, 2008 12:40 PM

To: 'david.dain@usdoj.epa'; 'polin.robert@epa.gov'; 'mahmud.shahid@epamail.epa.gov'

Cc: 'Tony.Davis@bakerbotts.com'; Aldrich, Tom; Litle, Bob

Subject: 2009 ASARCO LLC Environmental Trust Report and Budget Proposal

Importance: High

Sensitivity: Confidential

Mssr. Dain, Polin and Mahmud;

Attached please find three documents relating to the ASARCO LLC 2009 Environmental Trust Report.

- 1) ASARCO Cover-Letter
- 2) Proposed Environmental Trust Fund Budget Summary of Costs
- 3) 2009 ASARCO LLC Environmental Trust Report and Budget Proposal

Should you have any questions please contact Tom Aldrich at (520) 798-7749 or Bob Litle at (303) 947-9081.

Thanks you,

Ervinette Arthur

Secretary

(303) 296-5101

<<2009 DOJ Trust Cover Letter.pdf>> <<2009 Trust Fund Proposal Summary 103108.pdf>> <<2009 ASARCO LLC Environmental Trust Report and Bud.pdf>>

*

This e-mail and any files transmitted with it are the property of ASARCO LLC and/or its affiliates, are confidential, and are intended solely for the use of the individual or entity to whom this e-mail is addressed. If you are not a named recipient or otherwise have reason to believe that you have received this message in error, please notify the sender and delete this message immediately from your computer. Any other use, retention, dissemination forwarding, printing or copying of this e-mail is strictly prohibited. Although this email and any attachments are believed to be free of any virus or other defect that might affect any computer system into which it is received, and opened, it is the responsibility of the recipient to ensure that it is virus free and no responsibility is accepted by ASARCO LLC and/or its affiliates for any loss or damage arising in any way from its use
This e-mail has been scanned and cleared by MailMarshal
www.marshalsoftware.com



* 2009 DOJ Trust Cover Letter.pdf 2009 Trust Fund Proposal Summary_103108.pdf



2009 ASARCO LLC Environmental Trust Report and Bud.pdf

**PROPOSED ENVIRONMENTAL TRUST FUND BUDGET
SUMMARY OF COSTS
ASARCO LLC
OCTOBER 31, 2008**

Costs in (\$000)'s

EPA Region or State	Site	2009 ASARCO Trust Proposal	Performing Entity	Relevant Order or Decree
5	Beckemeyer (Circle Smelting)	\$250	Asarco or United States	Administrative Order
5	Hillsboro/Taylor Springs	\$500	Asarco or Blue Tee	Pending AOC
6	El Paso Metals Survey	\$500	Asarco or United States	Administrative Order
8	East Helena Soils	\$3,145	Asarco or United States	Consent Decree
8	East Helena Smelter	\$1,500	Asarco or United States	Consent Decree
8	Mike Horse (Upper Blackfoot)	\$250	Asarco or Montana	Administrative Order
9	Hayden Residential (Off-Site Property)	\$1,000	Asarco	N/A
8	Murray	\$145	Asarco or United States	Consent Decree
10	Ruston/North Tacoma Residential	\$1,500	Asarco or United States	Consent Decree
IL	Alton Lead Smelter	\$1,500	Asarco, Blue Tee, Illinois	Voluntary Remediation Program
TX	El Paso RFI	\$4,000	Asarco or Texas	Administrative Order
CO	Globe (Commercial Soils) (Off-Site)	\$500	Asarco or Colorado	Consent Decree
AZ	Trench	\$500	Asarco or Arizona	Administrative Order
AZ	Salero	\$300	Asarco or Arizona	Voluntary Action Program
Grand Total		\$15,590		

Peppersauce Bottoms CARE/Brownfields Project

Pueblo, Colorado

July 25, 2008

In the summer of 2006, the Peppersauce Bottoms neighborhood in Pueblo was ravaged by a flood. Basements and ground floors were flooded. Furnaces and other equipment were ruined. Floors and walls soon developed mold. The local community responded by contributing, money, materials and time to assist in repairing the damage.



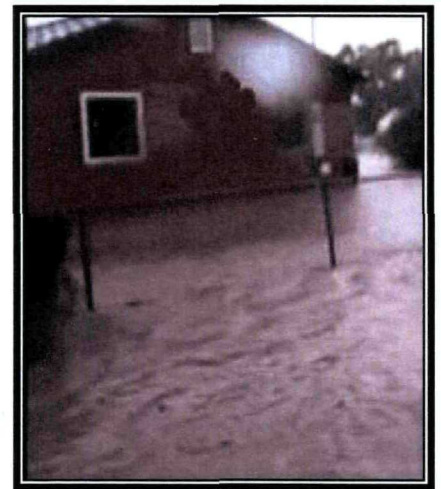
The Community

Flooding has been a common occurrence in Peppersauce Bottoms for decades. This is dictated by its low-lying geography and the lack of storm water controls.

Before the summer of 2006 flood, the City of Pueblo had decided to reallocate funds which had been intended for storm water control in the Peppersauce Bottoms neighborhood to other areas of Pueblo. Shortly thereafter, the August storm hit. That reallocation, together with the following flood,

created in the community a sense of frustration, outrage and helplessness. The community believed that, if they were other than a small, low income Hispanic community, such a reallocation would never have taken place.

The Pueblo CARE Project had assisted the community in recovering from the effects of the 2006 storm and project participants were very aware of the continuing threat of flooding in the neighborhood. CARE Project staff then met to consider selecting Peppersauce Bottoms as a candidate for CARE/Brownfields funds. With the agreement of the community, project staff suggested to the City that some sort of storm water controls be applied to the Peppersauce Bottoms neighborhood.



The Flood of 2006

The successful cooperative effort in the Minnequa Lake initiative (the first CARE/Brownfields project in Pueblo) encouraged the City Planning Office to look at applying for a Phase I Assessment for Peppersauce Bottoms. At the same time, we approached the City Storm Water authority and requested that the city budget funds for storm water controls in Peppersauce Bottoms. The Storm Water Office agreed to do so, if the appropriate properties could be located and acquired.

Several surplus properties owned by Burlington-Northern were in the path of storm water flows to the neighborhood (See the attached map). It was determined that these properties could be re-developed as both green spaces and storm water catchment areas. We approached the Planning Office and offered to apply CARE/Brownfields funds to these properties, thereby prospectively clearing title relating to environmental contaminants on the fourteen properties at issue. The city agreed to negotiate purchase agreements, pending the completion of the Phase I Assessments.

Current Status:

Purchase agreements have been drafted. The Phase I Assessments for the eleven properties are underway. Upon completion of the assessments, the City will acquire title to the properties. The Storm Water Office has budgeted up to \$2,000,000 to re-develop the properties over a two year time span. It is expected that by the end of the year the fourteen properties will have been acquired and that the way will be cleared for re-development.

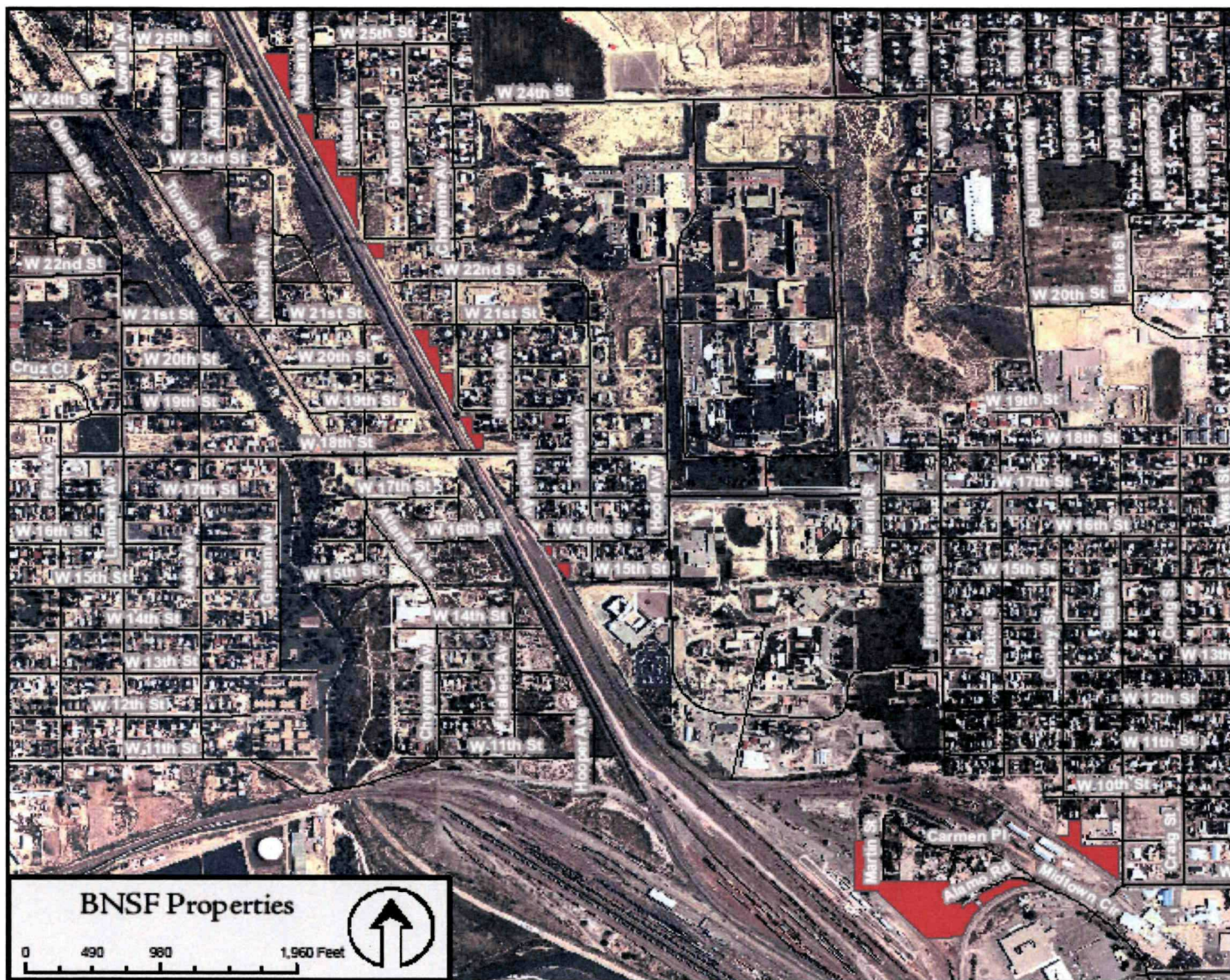
Partners:


Pueblo CAREs. Peppersauce Bottoms community, the City of Pueblo Planning and Storm Water offices, Burlington-Northern, Region 8 EJ and Brownfields teams, Pueblo City/County Health Department, and the Colorado Progressive Coalition.



The CARE Brownfields Team with City Officials

Burlington Northern-Santa Fe Properties (in Red) Undergoing Phase I Assessments




Peppersauce Bottoms

CARE-Funded Minnequa Lake Brownfields Site Assessment, Pueblo, Colorado

This is first Brownfields site to be funded by the Pueblo CARE project and the first Brownfield site to be applied for by the City of Pueblo. This site brings together the City and the community in a collaboration which will lead to other Brownfield applications.

Site History and Current Status

Lake Minnequa was established in 1873 to supply water to the residents of the new town of South Pueblo. Following the establishment of the CF&I Company, the lake provided the water for making steel. The original intent of the company may not have been to open the reservoir for recreational purposes, but immediately after the lake was completed, the townspeople started using the lake to swim, fish, boat or ice skate in the winter season. For over 75 years, between 1874 and the early 1950's, Lake Minnequa was described as "quite a resort". From 1976 to present the lake has been closed to all recreational uses and there has been limited use of the lake for industrial purposes at the CF&I steel mill.

Revival of Lake Minnequa as a public recreation and park area has brought about new interest in the redevelopment of properties south of the lake along Pueblo Boulevard (SH 45) and along Lake Avenue (east of the lake). The City's Urban Renewal Authority is poised to establish a new Urban Renewal District from St. Mary-Corwin Hospital to the Lake Avenue/Pueblo Boulevard intersection. The end product of the project will be the acquisition of the most significant open space area within the City's corporate boundary and the development of regional park facilities needed to serve the Pueblo community.

Current Status: The Phase I Assessment has been completed. A slag pile was identified at the site, however, it has been provisionally determined not to be hazardous. The State of Colorado has indicated that it will likely issue a letter of "No Further Action", thereby clearing the redevelopment of the site.

Partners: The Pueblo CAREs project, the City of Pueblo, Rocky Mountain Steel, Great Outdoors Colorado (GOCO) and the Region 8 EJ and Brownfields teams.

Outputs and Outcomes: This assessment has cleared the way for reuse of the site.

This initiative will result in the largest recreational expansion in Pueblo's history. Initial phases will focus on stormwater management and have a value of approximately \$7,000,000. Subsequent phases involve expanding recreational facilities and activities at the lake will cost an estimated \$20,000,000.



CARE-Funded Minnequa Lake Brownfields Site Assessment, Pueblo, Colorado

This is first Brownfields site to be funded by the Pueblo CARE project and the first Brownfield site to be applied for by the City of Pueblo. This site brings together the City and the community in a collaboration which will lead to other Brownfield applications.

Site History and Current Status

Lake Minnequa was established in 1873 to supply water to the residents of the new town of South Pueblo. Following the establishment of the CF&I Company, the lake provided the water for making steel. The original intent of the company may not have been to open the reservoir for recreational purposes, but immediately after the lake was completed, the townspeople started using the lake to swim, fish, boat or ice skate in the winter season. For over 75 years, between 1874 and the early 1950's, Lake Minnequa was described as "quite a resort". From 1976 to present the lake has been closed to all recreational uses and there has been limited use of the lake for industrial purposes at the CF&I steel mill.

Revival of Lake Minnequa as a public recreation and park area has brought about new interest in the redevelopment of properties south of the lake along Pueblo Boulevard (SH 45) and along Lake Avenue (east of the lake). The City's Urban Renewal Authority is poised to establish a new Urban Renewal District from St. Mary-Corwin Hospital to the Lake Avenue/Pueblo Boulevard intersection. The end product of the project will be the acquisition of the most significant open space area within the City's corporate boundary and the development of regional park facilities needed to serve the Pueblo community.

Current Status: The Phase I Assessment has been completed. A slag pile was identified at the site, however, it has been provisionally determined not to be hazardous. The State of Colorado has indicated that it will likely issue a letter of "No Further Action", thereby clearing the redevelopment of the site.

Partners: The Pueblo CAREs project, the City of Pueblo, Rocky Mountain Steel, Great Outdoors Colorado (GOCO) and the Region 8 EJ and Brownfields teams.

Outputs and Outcomes: This assessment has cleared the way for reuse of the site. This initiative will result in the largest recreational expansion in Pueblo's history. Initial phases will focus on stormwater management and have a value of approximately \$7,000,000. Subsequent phases involve expanding recreational facilities and activities at the lake will cost an estimated \$20,000,000.

